

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions or listings of claims for this application.

Listing of Claims:

Claims 1-26 (Canceled).

27. (Currently amended) An array of programmable conductor memories resistance variable memory cells in an integrated circuit, at least one memory cell comprising a pillars pillar of stacked materials material layers on a semiconductor substrate, the stacked layers comprising a first electrode layer, a chalcogenide glass layer having metal ions diffused therein and being capable of changing resistance under the influence of an applied voltage, and a second electrode layer, each layer having a lateral edge approximately aligned with a lateral edge of each other layer.
28. (Currently amended) The array of Claim 27, wherein further comprising insulating material in the regions between the pillars comprise insulating material.
29. (Original) The array of Claim 28, wherein the insulating material comprises silicon oxide.
30. (Original) The array of Claim 29, wherein the silicon oxide comprises tetraethylorthosilicate (TEOS).

31. (Currently amended) The array of Claim 29, wherein
~~there is the insulating material further comprises a~~
~~silicon nitride layer below the silicon oxide that~~
~~conforms to the pillars and to the substrate below the~~
~~silicon oxide.~~
32. (Original) The array of Claim 31, wherein the silicon nitride layer is between 5 nm and 50 nm thick.

Claims 33-48 (Canceled).

49. (New) The array of Claim 27, wherein the metal ions comprise silver ions.
50. (New) The array of Claim 27, wherein at least one of the first and second electrodes is tungsten.